

**ABSTRACT**

A routing Cable Modem Termination System (CMTS) configured to enable Point-to-Point Protocol over Ethernet (PPPoE). The routing CMTS may bridge Ethernet frames related to a PPPoE connection from a first network to a second network. Bridging Ethernet frames allows terminals in different networks to establish a PPPoE connection. A routing CMTS may also collect state information regarding PPPoE connections. The routing CMTS may use the state information to only bridge Ethernet frames related to valid PPPoE connections. It may act as a firewall to prevent spoofing attacks.